

REMARKS

The Examiner requested an election of species under 35 U.S.C. § 121 because the Examiner argues that the application contains claims directed to the following patentably distinct species of the claimed invention:

(A) the alkenyl radicals-containing polyorganosiloxanes,

(B) the organohydrogensiloxanes,

(C) the organosilicon compound-treated silver particles,

(D) the platinum catalysts,

(E) the presence or absence of the alkoxysilicon group-containing organosilicon, wherein if its presence is elected, a particular species thereof is identified, and

(F) the cure inhibitors.

The Applicants respectfully traverse the election requirement as the Examiner has failed to demonstrate either of the criteria necessary for a proper election of species requirement. MPEP §803 sets forth the following two criteria for a proper requirement for election between patentably distinct inventions:

(1) The inventions must be independent . . . or distinct as claimed . . . ; and

(2) There must be a serious burden on the examiner if restriction is not required.

The Examiner failed to satisfy criterion (1) because the Examiner has not given any reasons for the contention that the application contains claims to patentably distinct inventions under 35 U.S.C. §121, as required by MPEP §816. The Examiner made no statements as to the alleged independence or distinctness of the claimed invention. Therefore, the Examiner failed to meet criterion (1) by failing to demonstrate the independence or distinctness of the invention as claimed.

The Examiner failed to satisfy criterion (2) because the Examiner requested election for each of the 6 species in the composition of claim 8. Patentability searches for each group would have to be repeated if the election were limited as the Examiner required. Therefore, rather than avoiding a serious burden by issuing the present election of species requirement, the Examiner is creating a serious burden on the Patent Office via unnecessary duplication of searching effort because searches would have to be repeated many times, for each of the species named in the

application. An important advantage of pursuing just one application and searching all claims together is that the examination work of the Patent Office would thereby be simplified inasmuch as duplication of search effort would be eliminated. By avoiding such duplication of search effort, the Patent Office saves time and expense.

However, if the Examiner should make this requirement final, the Applicants provisionally elected the following species in a phone message on June 12, 2003:

(A) a mixture of dimethylvinylsiloxy-endblocked polydimethylsiloxane and organosiloxane resin containing trimethylsiloxy, dimethylvinylsiloxy, and $\text{SiO}_{4/2}$ units, as described in Example 4, at page 37, line 25 to page 38, line 4;

(B) trimethylsiloxy-endblocked polymethylhydrogensiloxane, as described at page 19, lines 10-11 and Example 4, at page 38, lines 5-7;

(C) silver flake treated by a dimethylvinylsiloxy-endblocked dimethylpolysiloxane, as described at page 9, line 20 to page 11, line 12, particularly page 9, lines 20-23 and page 11, line 2;

(D) chloroplatinic acid/vinylsiloxane complex, as described at page 24, lines 13-26, particularly lines 22-23 and Example 4, at page 38, lines 15-17;

(E) the presence of the organosilicon compound containing at least one silicon-bonded alkoxy group per molecule, said compound of the formula depicted in Example 9, at page 47, line 25; and

(F) phenyl butynol as described at page 27, lines 24-26, particularly line 26, and Example 4, at page 38, line 19.

Claims 8-15 and 17-20 embrace the elected species. The Applicants make this election with traverse for the reasons discussed above.

The Examiner rejected claim 10 under 35 U.S.C. §112, first paragraph, as being broader than the enabling disclosure of the specification because the Examiner argues that the specification is enabling for 1,3,5,7-tetramethylcyclotetrasiloxane and 1,3,5,7,9-pentamethylcyclopentasiloxane does not reasonably provide enablement for cyclosiloxane (c) which encompasses species not described. The Examiner further argues that the specification does not enable any person skilled in the art to make and use the invention commensurate in

scope with the claims. The Examiner further argues that claim 10 defines a siloxane resin (d) as opposed to a silicone resin set forth on page 11, lines 8-12.

✓ The specification provides enablement for cyclosiloxane (c). The species disclosed at page 9, line 23 to page 11, line 12, are exemplary and not limiting. One skilled in the art would be able to select appropriate cyclosiloxanes (c). The Applicants amended claim 10 to harmonize the description of the silicone resin with the specification on page 11, lines 8-12. The Applicants request that the rejection of claim 10 under 35 U.S.C. §112, first paragraph, be withdrawn and the claims allowed to issue.

The Examiner rejected claim 10 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention because the Examiner argues that there is no clear line of demarcation between siloxane oligomer (a) and siloxane resin (d) because an oligomer embraces a resinous form and a resin includes oligomers.

✓ The Applicants respectfully disagree. One skilled in the art would recognize that a siloxane oligomer and a silicone resin as used in this application differ in structure in that the silicone resin is a more branched and crosslinked structure than the siloxane oligomer. Numerous examples of siloxane oligomers are provided at page 10. Examples of silicone resins, and preferred properties, are provided at page 11. For the above reasons, the Applicants believe that they have particularly pointed out and distinctly claimed the subject matter that they regard as their invention. Therefore, Applicants request that the Examiner withdraw the rejection of claims 10 under 35 U.S.C. §112, second paragraph.

The Examiner rejected claim 17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention because the Examiner argues that claim 17 does not accurately depict the epoxy-endblocked third structure because the vinyl group on the second siloxy group is not exhibited and the values for a and b of at least one are not denoted in accordance with page 26, lines 19-29. Claim 17 has been amended to conform the third formula to the formula at page 26, lines 19-29. Therefore, Applicants request that the Examiner withdraw the rejection of claims 17 under 35 U.S.C. §112, second paragraph.

The Examiner rejected claims 8-15 and 17-20 under 35 U.S.C. §103(a) as being unpatentable over Nakayoshi in view of Fukui and Cole and Japanese Patent 446962 because the Examiner argues that Nakayoshi discloses a conductive adhesive comprising an alkenyl group-containing organopolysiloxane, an organohydrogensiloxane, silver flakes, a chloroplatinic acid/methylvinylsiloxane dimer complex and an epoxy endblocked organosilicon compound containing diethoxysiloxy, dimethylsiloxy, and methylvinylsiloxy units. The Examiner admits that Nakayoshi fails to recite pre-treatment of the silver particles with an organosilicon compound. The Examiner further argues that Fukui discloses treatment of silver particles with an organosilicon compound. The Examiner concludes that it would have been obvious to treat the silver flakes of Nakayoshi with the organosilicon compound of Fukui to impart stabilization against oxidation and improve dispersibility. The Examiner admits that the cure inhibitor is not recited by Nakayoshi and Fukui. The Examiner further argues that Cole discloses a formulation containing an inhibitor such as acetylenic alcohols. The Examiner further argues that the Japanese patent discloses a blend of alkenyl groups-containing organopolysiloxane, organohydrogenpolysiloxane, filler, platinum-silicone resin catalyst and phenyl butynol. The Examiner concludes that it would have been obvious to incorporate phenyl butynol into the composition of Nakayoshi to prolong pot life and enhance storage stability based on the disclosures of Cole and the Japanese patent.

Nakayoshi discloses a conductive adhesive for bonding a semiconductor pellet and tab (col. 1, lines 6-9). The problems to be solved by Nakayoshi are to prevent reduced wire bondability and reduced reliability of the semiconductor device and to improve moisture resistance of the semiconductor device (col. 2, lines 6-32). Fukui discloses a modified powder or particulate material having a silicone polymer film coated on substantially the entire surface thereof (col. 1, lines 7-10). The modified powder is used in cosmetics, pharmaceuticals, coating materials, inks, paints, decoratives, fragrances, magnetic materials, and medical materials. The problem to be solved by Fukui is to prevent the modified powder from denaturing or decomposing perfumes, oils, or resins and therefore will not cause problems such as denaturization, odor change, and color change (col. 1, lines 28-25).

One skilled in the art would not be motivated to combine the disclosures of Nakayoshi and Fukui. The disclosures of Nakayoshi and Fukui are not within the same field of endeavor because Nakayoshi discloses a conductive adhesive for bonding a semiconductor pellet and tab (col. 1, lines 6-9), and Fukui discloses a modified powder for use in cosmetics, pharmaceuticals, coating materials, inks, paints, decoratives, fragrances, magnetic materials, and medical materials (col. 1, lines 7-10 and lines 28-25). The disclosures of Nakayoshi and Fukui are not pertinent to the same problem because the problems to be solved by Nakayoshi are to prevent reduced wire bondability and reduced reliability of the semiconductor device and to improve moisture resistance of the semiconductor device (col. 2, lines 6-32), and the problem to be solved by Fukui is to prevent the modified powder from denaturing or decomposing perfumes, oils, or resins and therefore will not cause problems such as denaturation, odor change, and color change (col. 1, lines 28-25). Nakayoshi and Fukui are nonanalogous to each other, therefore, one skilled in the art would not be motivated to combine them.

Furthermore, this invention relates to an electrically conductive curable organosiloxane composition (p. 1, lines 6-7). The problem to be solved is to provide compositions yielding cured electrically conductive elastomers that retain their electrical properties for extended periods of time (p. 1, lines 7-11). This invention and Fukui are not within the same field of endeavor because Fukui discloses a modified powder for use in cosmetics, pharmaceuticals, coating materials, inks, paints, decoratives, fragrances, magnetic materials, and medical materials (col. 1, lines 7-10 and lines 28-25), and this invention relates to an electrically conductive curable organosiloxane composition (p. 1, lines 6-7). Furthermore, this invention and Fukui are not pertinent to the same problem because the problem to be solved by Fukui is to prevent the modified powder from denaturing or decomposing perfumes, oils, or resins and therefore will not cause problems such as denaturation, odor change, and color change (col. 1, lines 28-25), and the problem to be solved by this invention is to provide compositions yielding cured electrically conductive elastomers that retain their electrical properties for extended periods of time (p. 1, lines 7-11). Therefore, Fukui is not properly cited.

Additionally, one skilled in the art would not be motivated to combine the disclosures of Nakayoshi and Fukui because Nakayoshi discloses a conductive adhesive comprising a

conductive addition reaction-curing silicone rubber composition, which contains less than or equal to 500 ppm of low molecular weight siloxane (col. 3, lines 19-23). Examples of such a low molecular weight siloxane include cyclic dimethylpolysiloxane decamer (col. 8, lines 15-23). Fukui discloses that treatment of the powder can be effected by vapor phase treatment (col. 17, lines 1-3). The powder can be treated with, for example, hexamethyl cyclotrisiloxane (col. 19, lines 60-66) or 1,3,5,7-tetramethylcyclotetrasiloxane (col. 20, lines 66-67). One skilled in the art would recognize that hexamethyl cyclotrisiloxane and 1,3,5,7-tetramethylcyclotetrasiloxane are both siloxanes having an even lower molecular weight than cyclic dimethylpolysiloxane decamer. Therefore, Nakayoshi and Fukui teach away from each other because Nakayoshi discloses a conductive addition reaction-curing silicone rubber composition must contain less than or equal to 500 ppm of low molecular weight siloxane, and Fukui suggests purposely adding a low molecular weight siloxane.

Fukui does not teach or suggest that the modified powder would provide any benefit to a conductive addition reaction curing composition. Nakayoshi suggests that the modified powder of Fukui would be detrimental to a conductive addition reaction curing composition because of the low molecular weight siloxane that can be used to modify the powder of Fukui. Fukui discloses that the powder treated with the 1,3,5,7-tetramethylcyclotetrasiloxane can be formulated in a foundation composition (col. 37, lines 50-69). The foundation composition contains 78 weight % of the treated powder, where the treated powder contains 1.5 weight % of the treating agent. Therefore, Fukui teaches away from Nakayoshi because Fukui discloses that a low molecular weight siloxane is a suitable treating agent for the powder and that the powder treated with the agent can be formulated in a composition in an amount such that the composition contains far more than 500 ppm of the treating agent.

The Patent Office must identify where the prior art provides a motivating suggestion to make the necessary modifications. Furthermore, the mere fact that the prior art may be modified as suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification. Here, Nakayoshi suggests that modifying the conductive addition reaction curing composition by adding the modified filler of Fukui would be undesirable because the modified filler has low molecular weight siloxane, which is detrimental

to the composition of Nakayoshi. For the reasons above, one skilled in the art would not be motivated to add a powder treated with a treating agent of Fukui to the composition of Nakayoshi.

Even if Cole and the Japanese patent suggest adding a cure inhibitor such as phenyl butynol to a composition, this does not cure the defects of Nakayoshi in view of Fukui, discussed above. Therefore, this invention is not obvious over Nakayoshi in view of Fukui, Cole, and the Japanese patent. The Applicants request that the Examiner withdraw rejection of claims 8-15 and 17-20 under 35 U.S.C. §103(a) and allow the claims to issue.

The Applicants have particularly pointed out and distinctly claimed the subject matter that they regard as their invention, and the instant invention is novel and unobvious. Reconsideration of the application is requested.

This reply is being submitted within the three month response period for response to the outstanding office action. Although the Applicants believe in good faith that no extensions of time are needed, the Applicants hereby petition for any necessary extensions of time. You are authorized to charge deposit account 04-1520 for any fees necessary to maintain the pendency of this application.

Respectfully Submitted,
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